# Rhode Island MEDICAL JOURNAL

## *House of Delegates*

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# MEAT...

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This survey of the nutritional significance of fat again emphasizes the valuable role of meat fat in the daily dietary

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[1] Forbes, E. B., and Swift, R. W.: J. Nutrition *27*:453 (June) 1944. [2] Forbes, E. B.; Swift, R. W.; Elliott, R. F., and James, W. H.: J. Nutrition *31*:203;213 (Feb.) 1946.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

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The RHODE ISLAND MEDICAL JOURNAL

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# VESICOVAGINAL FISTULAE AND THEIR SURGICAL TREATMENT*

LOUIS E. PHANEUF, M.D., SC.D., F.A.C.S.

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VESICOVAGINAL FISTULA is one of the most distressing maladies affecting womankind. Up to a little more than a century ago it was considered incurable. Before a cure was discovered, many women so afflicted begged to die because of their great suffering, but, as J. Marion Sims stated "Death would have been preferable, but patients of this kind never die; they must live and suffer."

In the days of Sims, a pioneer in the treatment of this condition, most vesicovaginal fistulae were the result of the trauma of labor. Women with contracted pelves and with feto-pelvic disproportion were left in labor for a number of days, not infrequently with filled bladders, so that with each contraction of the uterus the bladder was firmly pressed against the symphysis pubis by the advancement and retraction of the presenting part, usually the fetal head. Eventually sloughing of the bladder and vaginal walls occurred, which resulted in enormous vesicovaginal fistulae, and which frequently involved the entire base of the bladder.

In the days under discussion, before 1834, there was not a great deal that could be done at delivery; cesarean section, as it is known at present, had not been developed, and the method of abdominal delivery employed at that time was almost universally fatal, on the one hand, because of its crude technique, and, on the other, because it was never employed until the parturient was far advanced in labor and frankly infected. Most of the women were delivered with forceps and it was well that it was so, for a woman with a vesicovaginal fistula could survive, and, after a cure was discovered could once again become a useful member of society.

The employment of the forceps was blamed for the resulting fistula when, as a matter of fact, it was the withholding of the forceps rather than their use that was responsible for the infirmity. The obstetrical fistulae were large, but with proper instrumentation they could be readily exposed for suturing. With the improvement of obstetrics in general, and of delivery care in particular, during the last five decades, the large obstetric fistulae of the past are seldom encountered.

Because of the marked strides in gynecologic surgery during the last half-century, operations on the female pelvic organs are performed daily in most hospitals. As a result of this large amount of surgery in this part of the female anatomy, the urinary bladder, which is attached anteriorly to the uterus, is exposed to injury. Injury to this viscus occurs in three ways: first, by direct trauma at operation; second, by interference with the blood supply to a certain small area of the bladder, resulting in sloughing; and third, by including the bladder wall in the sutures that close the vagina in the performance of abdominal panhysterectomy, in the closure of the vagina in various vaginal plastic operations on the anterior vaginal wall, and in the operation of vaginal hysterectomy. Fistulae resulting from operative trauma appear immediately after operation, while those due to necrosis and sloughing do not become apparent until a number of days have elapsed. Syphilis, tuberculosis, carcinoma and foreign bodies, such as pessaries, by erosion and ulceration, may account for an occasional bladder fistula. The surgical fistulae which are more commonly met nowadays have increased the difficulty of closure because of their inaccessibility, since they are situated in a high scarred vaginal vault; yet by

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* Presented at the 137th Annual Meeting of the Rhode Island Medical Society, at Providence, May 12, 1948.

means of a Schuchardt incision a number are rendered accessible. As a general rule, the three types of vesicovaginal fistula most difficult to close are those that are adherent to bone, those situated in a high scarred vaginal vault and those in which there is extensive loss of tissue.

In this country, for many years, we have given credit for the first successful operation for vesicovaginal fistula to Sims. In 1849 he successfully operated on a slave girl, Anarcha, and closed her fistula at the thirtieth operation through the use of silver-wire sutures, which he believed he had invented. To achieve this result he had worked for a number of years at the expense of his health and his income, and was aided by the sacrifices of his family in order that he might achieve this great feat. But if we study the literature carefully and go back far enough, we find that in January, 1834, Montague Gosset,[1] a surgeon of London, successfully closed a vesicovaginal fistula with gilded silver-wire sutures. In 1839, George Hayward[2] of Boston reported in the *American Journal of Medical Sciences* a successful operation for the closure of vesicovaginal fistula. In 1851, George Hayward[3] of Boston reported in the *Boston Medical and Surgical Journal* two additional successful operations for vesicovaginal fistula. In May, 1849, as previously stated, Sims closed Anarcha's fistula at the thirtieth operation. In 1857, Sims[4], in an address before the New York Academy of Medicine, claimed the honor of the discovery of the silver-wire suture.

The successful cases of Gosset and Hayward should not detract from the painstaking work of Sims, except in so far as priority is concerned. It is doubtful that he knew about the case of Gosset or the successful case of Hayward in 1839. He should be given full credit for presenting to the profession a well planned operation and for inventing the instruments that made its performance possible. In other words, after Sims' contribution we had a planned operation: the position that he advised, originally the genupectoral position, then the Sims' position, and the instruments with which to perform the operation so that the average surgeon could carry it out.

### *Technique of Operation*

Because of the many types and locations of vesicovaginal fistulae, numerous methods of closure had to be devised. As a general principle, these methods and their modifications are divided into five groups: (1) The vaginal procedures, including several varieties of technique; (2) the intravesical procedure, a modification of which is proposed by Phaneuf and Graves;* (3) the suprapubic extraperitoneal procedure, through a Pfannenstiel incision: (4) the intraperitoneal procedure through an abdominal incision, (Legueu technique); and (5) implantation of the ureters in the sigmoid, (Coffey technique) and its modifications.

The majority of these fistulae are closed by the first procedure, through the vaginal route; the other four procedures are reserved for the cases in which the vaginal method of closure cannot be applied. Since 1927, all cases of vesicovaginal fistula at the Carney Hospital are studied by both the Gynecological and Urological Services. We have combined our resources and have tried to choose the best method applicable to the given case.

### *Preoperative Preparation*

After a complete gynecologic examination the patient is submitted to rigid urologic studies. The urine is cultured, and all infections are treated by the antibiotics and the sulfonamide group of drugs; the vaginal walls are treated by means of mildly acid douches, a 1:1000 solution of acetic acid, hydrochloric acid or nitric acid, which dissolves the phosphatic incrustations. The vulva and inner aspects of the thighs, which frequently show excoriation, are treated by means of 10 per cent silver nitrate solution and by a protective layer of diachylon ointment (Unguentum Plumbi Oleatis, N.F. VIII.)

The urine is acidified by means of ammonium chloride or other drugs, to prevent the further formation of phosphatic deposits. After the infection has cleared up a cystoscopic examination is carried out, the relation of the fistula to the ureteral orifices is studied and pyelograms are obtained. The operation is not undertaken until all infection and irritation have been overcome, and only when the operator is satisfied that the tissues are healthy enough to hold the sutures and that healing will take place.

### *Suprapubic Bladder Drainage*

For the proper healing of a repaired vesicovaginal fistula, the bladder should be kept empty. In his first operation Sims tried to institute constant drainage by introducing a piece of sea sponge, to which a silk thread had been tied, in the urethra to the bladder neck so that urine would drain by capillary attraction. Infection set in, the temperature rose to a high degree and the patient was very sick. The operation was a failure. There followed the metallic catheter, then the present rubber catheter with all its modalities.

In the majority of cases constant bladder drainage is instituted through the urethra, the catheter being left in for seven to ten days. For the very difficult cases operated on vaginally we have found at the Carney Hospital that suprapubic drainage rendered great service. Since the bulb on the tip of

* The technique of this method will appear in Surgery, Gynecology and Obstetrics in the near future.

the catheter does not press on the suture line, healing goes on undisturbed, and the patient is more comfortable with this type of apparatus than she is with a urethral catheter. We continue the suprapubic drainage for twenty-one days. If the suprapubic catheter is brought out high up at the fundus of the bladder, the drainage tract usually closes in forty-eight hours after the catheter is removed.

### *Suture Material*

Success had been obtained in closing a vesicovaginal fistula with silver-wire sutures when all other suture material had failed, because, as Sims explained it, silver-wire caused no inflammation and tumefaction in the tissues. In the days when the Sims operation was first performed, the edges of the fistula were pared or denuded of scar tissue and the bladder and vagina were brought together in one layer by interrupted sutures. These tissues came together with a varying amount of tension and had to be held together long enough for healing to take place. The silver-wire sutures fulfilled these desiderata. More recently, W. Wayne Babcock of Philadelphia, who had proposed the steel-alloy wire suture for infected wounds, advocated it also for vesicovaginal fistula. It has two advantages over silver wire: a smaller strand may be used and the suture may be knotted instead of twisted as is necessary with silver wire and it does not cause disfiguring argyria in the tissues. The improvement of surgery in general having been applied to the operation of vesicovaginal fistula, most operators today dissect the bladder free from the vaginal wall, and when the bladder and vagina have been freely mobilized the edges may be brought together without the slightest tension. For this reason many operators now close these fistulae with fine chromic catgut sutures in two or three layers, rather than with metallic sutures.

### *Postoperative Care*

The postoperative care should be under the immediate supervision of the operator himself, and not left to less experienced young assistants. Except in the case of transplantation of the ureters careful bladder drainage should be instituted. This may be transurethral or suprapubic, the latter being reserved for the difficult cases. As previously indicated, the urethral catheter is removed at the end of seven to ten days, and the suprapubic at the end of twenty-one days. The bladder is irrigated by warm boric acid solution as indicated, but no strong antiseptics are left in the bladder. Penicillin or sulfadiazine or both are given in adequate doses as a prophylactic against infection. Keeping the patient on her abdomen during part or all of the convalescence is a valuable procedure when drainage has been instituted through the urethra. When metallic sutures have been used they are removed at the end of a month, always under anesthesia, intravenous anesthesia being quite satisfactory. The patient is allowed out of bed the day after the constant drainage apparatus is removed, on the eleventh or the twenty-second day, depending on the type of drainage used, and she is discharged from the hospital on the twelfth or twenty-third day, as the case may be.

### *Summary*

The history of successful operations for the closure of a vesicovaginal fistula is outlined. The etiology and the various methods devised to close the many varieties of fistulae are discussed. The preoperative preparation, the suture material and the postoperative care are taken up in some detail. The advantages of suprapubic drainage in certain difficult cases are stressed. The history of vesicovaginal fistula is a very interesting one. The successful closure of this lesion has restored a group of women to normal, useful lives, who before 1834 might otherwise have been doomed to lives of suffering and ostracism.

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# MODERN HEALTH PROGRAMS*

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I FEEL PRIVILEDGED to have this opportunity to address my colleagues of the Rhode Island Medical Society and their guests at this 137th annual meeting. Your invitation to appear on the program and my presence here indicate that we have come to recognize the increasing importance of a closer relationship between public health and the practicing physician. Over the years there has been a friendly relationship between the Society and the State Health Department. Doctor Pitts, a former President of the Society has been most cooperative in assisting us in the Cancer Control Program. Dr. Ruggles has been a member of the State Committee on Nursing Education for the past twelve years and is now serving as a member of the Hospital Advisory Council. Doctor O'Connell, our new President, has been a member of the Board of Examiners in Medicine for the past seven years. Through these men and other members of the Society this friendly relationship has been formed. It is indeed a coincidence that the first speaker introduced by Doctor O'Connell the newly installed president should be a friend of long standing.

The title of my paper is "Modern Health Programs". Although the American Medical Association keeps its members well informed on National Health Legislation through its special bulletins, I know that there are many programs which are planned, put into effect, and well under way by State Health Department before the medical profession learns about them. Great strides have been made in Public Health Administration and public health activities by State Health Departments expanded and broadened in a comparatively short space of time. These changes have come about partly through Public Health Education but mostly by the encouragement given by the Federal Grants-in-Aid.

The medical profession has often misunderstood the purpose and objective of Public Health largely because fundamentally its basis seems different from that of medical practice. The latter has focused its eyes upon disease as it occurs in the individual patient while the Public Health physician is more concerned with the health of communities and the broader aspects of diseases, the morbidity and mortality rates, environmental protective measures, and the economic loss incident to disease. The early modern Public Health movement was founded upon the introduction of the laboratory six decades ago in the field of bacteriology with the resulting discovery of the etiological agents of the many infectious diseases and their mode of spread. It became possible to institute preventive measures such as water purification, sanitation and food protection, to usher in a new era in preventive medicine as well as curative medicine. With each new discovery in this virgin field of scientific endeavor the interdependence of the Public Health worker and the practicing physician has become more marked. This was especially evident with the advent of the Public Health Laboratory. The practicing physician would feel helpless without these diagnostic facilities and the aid thus provided in the control and treatment of infectious diseases. On the other hand without the active cooperation of the practicing physician the epidemiologist would be hindered in accomplishing the best results.

Previous to the year 1935 there had been two programs over the years when the Federal Government made financial grants to State Health Departments. One grant was for the purchase of drugs to be dispensed free for the treatment of Veneral Disease and another to promote Child Hygiene activities. These grants were not large and were made only for a few years. In 1935 the Congress passed the Social Security Act with many titles. Title V made allotments to states for Maternal and Child Health Services and Services to Crippled Children; Title VI made allotments to states for General Health work. This was the real beginning

* Presented before the 137th Annual Meeting of the Rhode Island Medical Society, at Providence, May 13, 1948.

of Federal Aid for the advancement of Health Services to the states through their respective Health Departments. As the years passed appropriations were continued and allotments increased and as of this date without breaking down the figures into their respective categories such as Service to Crippled Children, Tuberculosis Control, Mental Health Services, Cancer Control, General Health unspecified, Industrial Hygiene, Maternal and Child Health Services which include Rheumatic Heart and Emergency Maternal and Infant Care, Venereal Disease and Dental Health more than 50 million dollars is being appropriated annually by the Congress for Health Services through Health Departments in addition to the 75 million dollars for hospital survey planning and construction. A recent accounting by the Federal Security Administrator of the Federal Funds allocated to the various states during the year ending June 30, 1947 for Health and Welfare Services reached the high figure of one billion 250 million (1,250,000,000.) with eighteen programs involved. The effect of this Federal stimulation on State Departments of Health can be well demonstrated by the following: A short thirteen years ago the Rhode Island Department of Health had its laboratory as an aid in detecting and ultimate control of Communicable Diseases; it had a Division of Maternal and Child Health with several nurses who carried on a program for health education for mothers and children and conducted a few well baby clinics; it had a Division of Communicable Diseases which made epidemiological studies of outbreaks of diseases including a venereal disease section which distributed arsenicals to the physicians of the State and attempted to check the spread of venereal disease; it had a Bureau of Vital Statistics which kept records of births, marriages and deaths. The budget of the State Health Department at that time was $130,000.00 and there were 50 full time employees. Although the State Reorganization Act of 1935 placed the functions of several commissions and boards that were functioning independently, in the Dept. of Health, nevertheless, these national health programs with their grants-in-aid were the main source in producing a greater expansion of the department and an extension of basic health activities. The State Department excluding the cost of operating the State Sanatorium at Wallum Lake, now operates on a budget of three-quarter million dollars with 172 full time employees. Of this, three-quarter million dollar expenditure the Federal Government contributes $400,000.00. While Public Health is primarily the responsibility of State and Local Governments the Federal share of this responsibility has been amply demonstrated through the passage of the Social Security Act and the increasing amount of Federal grants-in-aid that have been made available for Public Health.

The Emergency Maternal and Infant Care program to aid the wives and infants of men in the armed forces below a certain grade, during its existence authorized services for 1½ million individuals with the Rhode Island figure of 7500 aided. When this program was inaugurated I saw the possibility of the first inroad by the Federal Government in the realm of private practice of medicine. However, it received the approval of the AMA and apparently worked out well to the satisfaction of all. I have been informed that this program is about to be resumed. To date none of these programs with resultant expansion in Public Health activities has as yet, as far as I can see, made any inroads into the private practice of medicine. Whether or not some or all may be a foundation for and the experience derived in administering these programs provide the machinery or act as a wedge for the socialization of medicine, time will tell. I believe the vigilance of the State Health Officers all of whom are physicians and many of whom are active members in their State Societies has been responsible in preventing Government encroachment in the field of the practicing physician. There are some career men in Public Health who, never having been in private practice, and so, not having had the opportunity to familiarize themselves with the practice of medicine, may desire State control, but at the present time these are in the minority and the Association of State and Territorial Health Officers as a whole has been a watch dog against any programs that would interfere with the relationship between the patient and the private physician.

Last week at the request of the President, Mr. Ewing, Administrator of the Federal Security Agency, called a National Health Assembly for the purpose of developing a ten year program of health goals for our country. Some six or seven hundred leaders from all phases of our national life were invited with the aim of obtaining the widest possible presentation and the best possible advice. It may be of interest to you to know that the executive committee of this National Health Assembly consisted of forty members only five of whom were doctors of medicine and one a doctor of dental surgery. You have seen reports in the papers of the meetings held at the National Health Assembly with captions such as "Health Plan Snags Parley" and "Improved Medical Services Urged". Out of this Assembly with its many meetings will come the stimulation for more health programs which certainly will include medical care. I recently read in the Washington Report on the Medical Sciences that Dr. Hugh R. Leavell, of Harvard University School of Public Health had been chosen by Fed-

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eral Security Agency to be chairman of the Medical care section. The announcement was made without waiting for AMA indorsement after several weeks of wrangling between AMA and FSA over the chairmanship had failed to fill the position. It went on to say that Dr. Leavell was reputedly a middle of the roader with respect to medical economics. Tactfully avoiding the expressing "health insurance," the FSA description of the medical care section's scope says, in part: "(It) will discuss the organization and financing of personal health services . . . the adequacy and potentialities of various plans and arrangements . . . for meeting current needs and steps to be taken toward making better health care available to the population". Early reports on results of the meetings of the National Assembly indicate that there is a definite agreement that some prepayment plan should be adopted for medical care; also great stress was laid on the need of trained personnel to carry on health services. Emphasis was made on the shortage of doctors as well as other trained personnel; the need of appropriation of greater funds for expansion of health services and I understand the only fireworks was Labor's attack on Doctor Fishbein.

Programs are initiated and stimulated by Federal grants and the day may come when the grant is out and services already demonstrated to be worth while must be curtailed unless the State provides financial aid to carry them on. If it does not it is the State and not the Federal Government that is criticized for curtailing the services. There is a slogan "Health is Wealth" and unless we have a healthy nation we cannot be a productive nation, but where shall the line be drawn? Shall the Surgeon who saves a man's life make the fee so large that the individual would live a miserable existence because of lack of funds to exist and shall the Federal Government with its many programs, health and others, make it possible for man to live longer and enjoy good health only to live unhappily by the taxes that are thrust upon him? Up until the present time it is apparent that the promotion of the Public Health has made it possible for our people to have good health so that they can work and earn and have money both to live well and to pay taxes. Most of these programs are planned by highly educated persons in the field of health, many of them lay persons and the propaganda, if we may use the term, from those sources has been responsible for the establishment of these programs, during the past twelve years in this socially minded country of ours.

There are two bills in Congress now under consideration neither of which I believe will pass nor be enacted into law. Both pertain to health insurance. The Wagner-Murray-Dingell Bill calls for compulsory health insurance which includes medical care and hospitalization or in other words for the over all medical care of all the people, supported by a nationwide tax collected by payroll deduction of workers in industry and other taxes on non-payroll citizens. Provisions are made for decentralization of administration and guaranteeing free choice of physician. The Taft Bill contemplates Federal grants to the several states and challenges the states to develop their own plans for taking care of the health needs of the people within their respective jurisdiction; no special earmarked tax is proposed under the plan. Since such funds do have to come from monies not otherwise encumbered, in the final analysis such monies would necessarily have to come from taxation. Senator Taft has lambasted the White House efforts to socialize and nationalize medicine and to pour billions in taxes into Washington but his bill provides for Federal grants to States for Medical care and would not that be a beginning of State Medicine although decentralized?

Last summer and fall Governor Pastore received several requests from the sub-committee of the Congress reviewing these proposed acts. He finally answered by stating that:

> "As we review the situation in Rhode Island we believe that all classes of the population are getting adequate medical care. Seventy per cent of the State's population is enrolled in the Blue Cross. The Rhode Island Medical Society is about to set in operation a surgical care program. The State Department of Health is about to complete its survey pursuant to the State's participation in the Federal Aid to Hospitals program. Since Rhode Island is a small State and all parts readily accessible, we have no widely scattered rural areas and consequently no health problem that cannot readily be taken care of. We feel that the health needs of the people in Rhode Island are being taken care of in a very satisfactory manner. In the over all national situation on this problem, we do not feel that we are in a position to make comment."

Surprising even Capitol Hill's most dogged followers of legislation was the decision last week by Senate Committee on Labor and Public Welfare to hold hearings on the Lodge Bill. Introduced by the Massachusetts Senator in February 1947, and amended by him three months later, the measure (S.678) had been all but forgotten. Its revival at this time is fraught with meaning. His party wants to put over a piece of major health legislation before Congress adjourns, being fully cognizant of its political value come November. They realize that the Taft and Murray-Wagner-Dingell bills have killed off each other. True, bills strengthening local public health units are pending before House and

Senate but these do not possess the potential vote-getting punch of S.678. This measure authorizes Federal Grants to the various states to make free medical services available "to such persons as may require them," regardless of their financial means. "Medical Aid" is defined as the more expensive therapeutic drugs (including biologicals presumably), X-ray and laboratory diagnostic services and respirators. Allocation of the Federal funds would be by U. S. Public Health Service but the states would have virtually unrestricted control over selection of patient-recipients. Senator Lodge first introduced his plan in 1940, revieved it last year and now hearings are scheduled before the health subcommittee of Senator Taft's Labor and Public Welfare Committee.

There is an act now being studied by a committee of the Congress termed the Local Public Health Services Act of 1948. This act presupposes people living in rural areas cannot have the same benefits of preventive medicine and other Public Health procedures as those who live in urban areas. We all agree that the knowledge now possessed for the promotion of good health should be made available to all people, and again it is argued that the Federal Government should assist in providing for the health of the people since the people's health is the nation's greatest asset. We in Rhode Island have no rural areas when the national picture as a whole is considered. The Hospital Advisory Council has agreed that in dividing Rhode Island, under a formula set forth in the Hospital Construction Act, that there is no area that can be considered rural. Rhode Island is a small State and all parts readily accessible to hospitals, health centers, and private physicians. It is interesting to note that the State of Vermont in its plan for construction of new hospital facilities and health centers does not consider itself as having rural areas under the definition of the Hospital Construction Act. It is apparent then that the emphasis on benefits for medical care and preventive medicine is placed upon the needs of those living far from cities, medical centers, and hospitals. No one will deny that without good health for its people a nation cannot have economical or political independence and no nation can expect to survive either in peace or in war. The local Public Health Services Act of 1948 provides for (1) prevention of illness and injury, (2) prolongation of life and prevention of untimely death, (3) the improvement of individual health. The bill does not provide for medical care. The United States Public Health Service is required to define basic Public Health Services. These minimum Public Health Services may be defined as such services as State and Local Health Departments now or in the future may perform which are deemed appropriate and for which adequate funds are not already provided through other federal grants-in-aid.

Although the bill does not provide for medical care, the United States Public Health Services is permitted to define basic Public Health Services. There may be a loop hole here. Doctor Miller appearing before the Congressional Committee considering the act and speaking as a member of the Board of Trustees of the American Medical Association raised a question in this regard. He said "It is our viewpoint that the law itself should state what shall constitute basic Public Health Services and as a corollary that such determination should not be left to any Federal Administrative Officer". He suggested that the bill be amended adding a definition of basic Public Health Services to include the functions already listed as basic, namely:

1. *Vital Statistics,* or the recording, tabulation interpretation, and publication of the essential facts of births, deaths, and reportable diseases.
2. *Control of Communicable Diseases,* including tuberculosis, the venereal diseases, malaria, and hookworm diseases.
3. *Environmental sanitation,* including supervision of milk and milk products, food processing and public eating places, and maintenance of sanitary conditions of employment.
4. *Public Health Laboratory Services.*
5. *Hygiene of Maternity, Infancy and Childhood,* including supervision of the health of the school child.
6. *Health Education of the General Public* so far as not covered by the functions of departments of education.

and to exclude the care of the sick as a function except where that care is necessary for the protection of the health of the community. The act does provide that all of the funds appropriated be made available to the local units of government without any of the funds sticking to the fingers of either the Federal or State Agencies. When these acts for Health Programs are presented to Congress and hearings held there is a great overemphasis laid on the particular needs that the act proposes to take care of. Last year the Commission to Re-examine the Field of Governmental Operations in Rhode Island, the Cost of Governmental Services and the Tax Structure of the State of Rhode Island engaged outside experts to survey the Departments of Health anl Social Welfare. One of the recommendations was a consolidation of all local health services under the direction of the Director of Health which would increase the staff of the department by 184 and an additional cost of one-half million dollars. The formula was applied in the Rhode Island Survey that was applied nationally and that formula is the basis for the local Public Health Services Act of 1948.

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Now the introduction of the local Public Health Services Act of 1948 is a natural evolutionary process in the formulation of plans and programs for continued improvement of the health of the people of this nation. Although the Federal Government is recognizing its share of the responsibility at the same time it is recognizing the rights of states to administer these programs within their own jurisdiction. During the years as a practicing physician and a member of the State Medical Society I have always feared lest these programs might be the entering wedge for federalized control of medicine. At this time I can assure you that although the various Federal Agencies request plans and accounting of procedures, reports, and an auditing of our books, and I think they are justified in so doing, I have never noticed any attempt by the Agencies to interfere with the administration of the Health Department. Present funds are made available for non-controversial preventive and other public health procedures which are already an accepted responsibility and function of local governments. Extension and expansion of basic health services can be made available to all the people without interfering with organized medical practice. Only one question might arise and that is the vast expenditure of money and resultant increase in taxes. However, it is well for us to take care of the needs of our people when so much money is being appropriated to take care of people suffering in foreign lands.

Once again I would like to call to your attention the great interest of lay groups in promoting these programs. A conference on Local Health Units was held at Princeton recently under the auspices of the National Health Council the executive director of which is a layman. The National Advisory Committee of Local Health Units has twenty-eight members representing twenty-eight National Associations. Of these twenty-eight representatives eight are doctors of medicine, one a doctor of dental surgery and one a registered nurse. It is evident that our national health programs are planned and inaugurated by laymen. These lay representatives that serve on national health committees are individuals interested in national health, and I believe are sincere in their thinking but it is easy to understand how such programs as compulsory health insurance receive their impetus and due regard not given to the interests of the medical profession nor the doctor-patient relationship. To give you an insight on how these health programs are promoted, and I do not mean to make an inference that they are not essential nor justifiable. At the hearings on "Local Public Health Services Act of 1948" already such organizations as the National Tuberculosis Association, the American Social Hygiene Association, the National Congress of Parents and Teachers which sponsored the bill have given testimony before the house committee. Now, this is a good bill and has received the endorsement by James R. Miller, M.D. a member of the Board of Trustees of the American Medical Association and also by the President of the State and Territorial Health Officers Association but I am just citing it as an example of how health programs originate and the pressure put on for their enactment. If this bill passes it would make available personnel for the performance of basic Public Health activities at an annual cost of 208 million dollars. The Federal contribution would be approximately one-third of this.

Since grants-in-aid were made by the Congress for the past thirteen years to state health departments for the expansion of health activities there has been the tendency by the Congress to hesitate on appropriating money unless for specific purposes. Whereas a few years ago each State received a grant from the Federal Government for General Health services to be used at the discretion of the State Health Department provided it was not used to replace funds appropriated by the State; each year there is a definite trend to earmark portions of the grant for specific purposes. To members of Congress general health or basic health activities mean nothing. But when a specific appropriation is requested for Cancer, Tuberculosis, Dental Care, Venereal Disease or Industrial Hygiene, the appropriation bill is more certain of passage. Now to overcome this general terminology of general health or basic health needs the present bill for local Public Health Services has been introduced. The question arises how far should a state administration go in endorsing these programs by urging their members in the Congress to support these bills. The passage of this act would be most helpful in granting financial aid to cities and towns for health purposes. Of course if the act passes, Rhode Island will very willingly accept its share. Certainly every attempt should be made to have returned to Rhode Island as much Federal money as is available. At the present time Rhode Island being one of the wealthiest states receives a small proportion in return for the money sent out of the state for Federal taxes. When these Federal Health Programs first originated in 1936, Maine and Vermont refused to participate but soon they realized that although they were not in sympathy with increasing government expenditures, they might just as well get some of the money back from Washington and finally requested their allotment. The formula used with most of these programs is based on the wealth of the State, the need, the population to some extent, and the amount of money already expended by the respective state for health

services. The wealthy state which appropriates well for health services is penalized under this formula and the money that the wealthy state turns in as Federal Revenue goes to the aid of poorer states. When this point was discussed a few years ago the surgeon general told me that we were our brother's keeper.

Last November four National Welfare and Medical Groups recommended a program for aiding the 25,000,000 Americans who are reported to have chronic diseases. Sponsors of the program are the American Public Welfare Association, the American Medical Association, the American Hospital Association and the American Public Health Association. The organizations said that of those with chronic diseases some 7,000,000 are partly or completely incapacitated, and each year nearly 1,000,000 die from such illnesses.

A bill is now before Congress to provide for research and control relating to the disease of the heart and circulation by the establishment of a National Heart Institute. This has received the endorsement of the American Medical Association. As Public Health work has progressed and since life expectancy has been extended because of the great decrease in communicable disease and other diseases of childhood and with the advent of the sulfa drugs, penicillin and streptomycin, great consideration is now being given to the diseases of middle life. In a broad conception of Public Health Work these diseases such as Cancer, Diabetes, and Heart conditions are being considered as possible functions for health departments to investigate.

Under the Federal Hospital Construction Act, Rhode Island will receive $280,000 annually for five years to be matched by non-profit hospitals on a one to two basis. For survey and planning $15,000.00 is granted annually on the same basis. That is $1.00 of Federal money for every $2.00 of State, local or non-profit hospital money. There was a hospital facility section in the recent National Health Assembly. The Federal Security Administrator in announcing the formation of this section referred to the poor distribution of the existing hospitals in the country as a whole and particularly to the scarcity of hospital facilities in rural areas. He suggested the desirability of an analysis of the roles of the various types of hospitals to determine their interrelationships. The section also considered the nations need for health centers and diagnostic facilities. In speaking of hospitals I would like to mention a thought that has been on my mind for the past few months. With the financial status of the hospitals not strong because of decrease in endowment income, increased costs in food, maintenance and salaries, the resultant increase in hospital rates may be used as an argument for the federalization of hospitals and medical care. Rhode Island Hospital has requested and received from the state an appropriation of more than a quarter million dollars to cover deficit for recently closed fiscal year. You may have read recently in the press that a deficit of $900,000 threatens the existence of the great medical center of the world famed Johns Hopkins Hospital. At the hearing before the House Finance Committee when the request from Rhode Island Hospital was being considered the question was asked "will this not head to government control?". With the high cost of living and the high cost of hospitalization the people are feeling the pinch and it behooves the members of the medical profession to consider well the financial condition of the patient before charging a fee particularly for a surgical operation that is out of proportion to the patient's ability to pay. Senator Murray who is deeply interested in the Murray-Wagner-Dingell Bill has recently said "Unless the Congress enacts a health insurance measure the proposed tax rebates so sorely needed by each family to pay for food, clothing and shelter can be eaten up by a single surgical operation".

The Hospital Construction Program is now being considered under authorization of the Federal Act and by an act of the Rhode Island Legislature last year. The State Department of Health has been designated as the State Agency for carrying out the Federal program. In brief, it provides for survey of hospital facilities and public health center needs; also for planning later financial aid to non-profit hospitals in any construction they may undertake. To qualify under the Federal Program a State Agency must have an advisory Hospital Council and this Council appointed by Governor Pastore has been working diligently for several weeks. It is apparent to all that there is a shortage of general hospital beds in the State. The survey which has been under way has been completed and the plan is ready to be presented at a public hearing required by law.

How much the new Veterans Hospital will lessen the demands on our hospitals here in Rhode Island, time will tell. Several hospitals are planning additional maternity wings. Whether or not these will be needed in the future remains to be seen. I feel that we have reached the peak in the great increase in births. There again, time only will tell. For the coming five year period one and one-half million dollars will be allocated to Rhode Island upon the due approval of applications from hospitals desiring assistance. For every dollar given by the Federal Government, $2.00 must be provided by the non-profit hospitals. With the estimated cost of $20,000 per bed in the hospital construction it is apparent that the grant to this State is not large. Again since nearly all Federal grants are allocated on a formula basis and since Rhode Island is one

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# ACUTE ASCENDING PARALYSIS*

## *Case Report of Repeated Attacks With Complete Recovery*

WALTER C. WEIGNER, M.D.

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ACUTE ASCENDING PARALYSIS terminates fatally in the vast majority of cases. Death is practically always due to respiratory failure and often in spite of the use of a respirator. Complete recovery of a severe case with respiratory paralysis necessitating the use of a respirator is therefor by itself worthy of report. When in addition the patient's past history indicates that this is the second episode of acute ascending paralysis with complete recovery, the case report is doubly significant. Review of the literature does not reveal any similar case report of repeated attacks with complete recovery.

### CASE REPORT

A white housewife age 60, on April 18, 1944 developed a sore throat, felt "grippy" and had some loose watery stools. Within twenty-four hours she developed slight headache and complained of numbness of both feet. On the following day the numbness extended upwards to include first both legs and then both thighs. Weakness of both lower extremities developed concomitant with the ascending parathesias. On the third day similar numbness and weakness developed in both hands spreading quickly to involve all of both upper extremities. By this time both lower extremities were completely and flaccidly paralyzed and weakness of the trunk muscles was developing. On the fourth day, patient had difficulty in swallowing and she could not lift her head from the pillow. All four extremities were now completely paralyzed. She complained of a choking sensation and could not swallow. Her color was extremely pale and her general condition appeared alarmingly poor. Up to this time she had complained of no pain except for slight headache and backache. There had been no chills or fever.

Upon hospitalization, examination revealed a pale and exhausted appearing woman lying motionless except for shallow breathing. She was mentally clear and answered questions in a feeble voice. Her most distressing complaint was difficulty in breathing and observation revealed that breathing was entirely abdominal there being no evident use of the thoracic muscles.

Examination of the cranial nerves revealed the pupils to be of medium size reacting promptly to light. There was no ptosis of the eyelids or strabismus. Diplopia was denied. Eyeball movements were full and equal in all planes. There were no sensory disturbances over the face. No facial weakness was present. Hearing was within normal limits. The gag reflex was present and the tongue protruded well and in mid-line.

The tendon reflexes were absent in all extremities. All extremities were completely and flaccidly paralyzed. Compression of the muscles of all extremities elicited moderate tenderness. Feeble rotation of the head supported on the pillow was possible but patient could not raise her head from the pillow. She could not elevate her shoulders nor was she able to use her trunk muscles.

Sensory examination employing light touch and pin prick over the entire body surface revealed normal sensibility. Position and vibration sensations were intact. Sphincter control was not impaired.

General examination revealed the temperature to be 98.6, pulse rate was 116, and blood pressure was 180/100. There was slight injection of the pharynx. Heart action was regular in rate and rhythm. No murmurs were heard. Lungs were resonant throughout. Abdominal examination revealed the muscles to be extremely relaxed. No masses were felt and there was no tenderness. Examination of the extremities revealed no edema and there were no evidences of nutritional or vasomotor disturbances.

Laboratory studies revealed the urine to be normal except for the slightest possible trace of albumin. Blood urea nitrogen was 12 milligrams per 100 cc. Red blood cell count was 4,650,000, white blood cell count was 11,250 with 77% neutrophils, 19% lymphocytes, and 4% monocytes. Blood

* Presented before the Providence Medical Association, at Providence, April 5, 1948.

hemoglobin was 15.7 grams. Spinal puncture revealed the spinal fluid pressure to be within normal limits. Clear colorless fluid was obtained. Cell count was 2 lymphocytes per cubic millimeter. Total protein was 50 miligrams, glucose was 88 milligrams, and sodium chloride was 735 milligrams.

During the fifth day of illness, respiratory difficulty increased, slight cyanosis developed and patient lapsed into a semi-comatose state. At this point she was placed into a respirator where her color quickly improved and she roused sufficiently to converse feebly. She could swallow nothing however and fluids were given by proctoclysis.

On the sixth day, patient appeared stronger and she was able to wiggle her toes and fingers slightly. On the seventh day she was able to move her left hand and forearm slightly and on the eighth day she was able to move both upper extremities slightly. On this day she felt much better generally and was able to be out of the respirator for several fifteen minute periods. Her breathing however was shallow and she complained of breathlessness.

By the tenth day there had been further return of power in the upper extremities to such a degree that patient could move them fairly well. The lower extremities however continued to be completely paralyzed.

By the twelfth day there was such a marked improvement that further use of the respirator was no longer indicated. Breathing was now adequate and easy, color was good, and patient felt much stronger and more comfortable generally. From this point on recovery was steady but gradual. Power slowly returned to all the previously paralyzed muscles and by the twenty-fourth day fair strength had returned to all extremities. By the thirty-sixth day patient was able to be up and about for short periods and on the forty-fourth day she was discharged to her home.

At no time throughout this illness did patient run any elevated temperature. At no time was there any loss of sphincter control. No special medicinal therapy was employed.

Patient was next seen approximately five weeks later at which time she reported that she had been up and about leading a normal but quiet life at home performing light household tasks. Good power had returned to all extremities. Neurological examination at this point revealed all tendon reflexes to be present and lively. The only symptom that patient reported at this point consisted of occasional pins and needles parasthesias in both feet. Objective sensory examination however was normal. No tenderness was present on compression of the muscles and all extremities possessed good power. No muscle wasting was evident.

Three months later patient was again seen at which time the tendon reflexes were still lively. No muscle tenderness or muscle wasting were present. She reported that the parathesias were still present but that now they were limited to the dorsum of the left foot.

In June 1946 (thirteen months after onset of illness) patient was again seen. The tendon reflexes were now of normal intensity, the parathesias had entirely disappeared, and patient had no complaints. Muscle strength was excellent and patient looked very well.

### *Additional History*

At the time patient was first hospitalized, she stated that many years previously she had had a similar illness consisting of numbness and paralysis of both lower extremities from which she recovered completely in several weeks time. Her husband and sister verified this statement but could not supply any definite details. Unfortunately the physician who saw her at that time had long since passed away and no records were available. When the patient recovered from her acute illness, the history of this previous attack was gone into more carefully and the following information obtained.

The illness occurred when she was thirty years of age and at a time when she was very tired from a busy schedule. She had had a "cold" but had recovered from it and was up and about although she felt extremely exhausted. A few days later she developed numbness in the soles of both feet and during the course of the subsequent week this numbness extended into the toes and then throughout both feet. During this period she felt vaguely ill but does not recall any sore throat, fever, or gastrointestinal disturbances. The numbness then spread rapidly first ascending to the level of both knees and then climbing up both thighs and into the lower back. Within forty-eight hours she was unable to move either lower extremities and her back was so weak that she was helpless from the waist down. Her arms were never affected nor was there ever any loss of sphincter control. She recalls no temperature or headache. At no time did she have any difficulty with her breathing or swallowing.

This previous paralysis from the waist down lasted about two weeks and during the following week all numbness and paralysis disappeared. Except for generalized weakness she felt well. Subsequently she had no difficulty whatsover with her lower extremities and lived an active and normal married life bearing two children without any difficulty.

## DISCUSSION

Medicine is indebted to Landry who in his monograph upon the subject[1] focussed attention upon the phenomenon of ascending paralysis in 1859.

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He described an acute and highly fatal form for which he established the following criteria.

I. Symptoms of rapidly ascending motor paralysis.
II. Absence of significant sensory phenomena.
III. Freedom from sphincter disturbances.
IV. Absence of pathologic changes in the nervous system.

Since Landry's time a number of cases exhibiting the phenomenon of ascending paralysis have been reported. These case reports however have to a large measure indicated that our knowledge of the whole subject of ascending paralysis is far from complete. Some writers feel that a morbid entity such as described by Landry does exist and that the term Landry's paralysis is justified in referring to a certain type of ascending paralysis. Other writers however noting the frequency with which cases of ascending paralysis do not fulfill the criteria laid down by Landry feel that we are dealing merely with a disease syndrome behind which there are various and multiple etiological factors and presenting various pathologic pictures. The literature on the subject is consequently in such a state of confusion that one recent writer has suggested that the whole chapter on ascending paralysis should be rewritten. Certainly there is need for a number of new case reports based upon careful observation and employing the latest techniques of diagnosis and neuro-pathological study.

If one reviews the reported cases the majority of which are labelled in the literature under the common heading of acute ascending paralysis one is struck by several glaring facts. One is that the clinical and pathological pictures vary so greatly that all writers cannot possibly be referring to the same disease process. For example, many writers report cases which follow the classical description as portrayed by Landry and fulfill the previously enumerated criteria. Their cases present an acute onset, pursue a rapid and highly fatal course, and present little or nothing at autopsy. Conversely others report cases in which the onset is gradual and the progress slow, objective sensory losses and sphincter disturbances are present, and a wide variety of significant changes in the peripheral nerves, spinal cord, and even of the brain are found on autopsy. It is difficult to reconcile such divergence of clinical and pathologic facts. It seems unreasonable to view as identical illnesses one case that fulfills the criteria of Landry and another case for example where the ascending paralysis is associated with leukemia and shows leukemic infiltration of the cord on autopsy.

The second fact that a review of the literature reveals is that the diagnosis and treatment of a case of ascending paralysis represents a problem involving not only the neurologist but the internist as well. Every case poses a problem of etiological determination extending beyond the realm of neurology. The mere diagnosis from the neurological point of view without careful study directed toward a determination of the many possible causal factors is of little meaning. To consider all cases of ascending paarlysis as Landry's paralysis is not only absurdly unscientific but is potentially dangerous. To appreciate these points more fully let us turn to a brief review of the literature as it relates to the reported etiologies and pathological pictures.

Ascending paralysis has been ascribed to such a variety of causes that no single etiologic factor can be said to operate in all cases. It has been reported in sheep,[2] in dogs,[3] and in humans[4] as a result of tick bites. In these cases the paralysis is ascending, symmetric, and flacid. Reflexes are lost and there is no fever. On removal of the tick, the symptoms gradually disappear in the reverse order of their development. It is not known whether it is the saliva itself of the tick or some infective agent in the tick that is responsible for the paralysis. Acute ascending paralysis has also been reported[5] as being caused by the sting of the weaver fish. It has followed closely upon the administration of cold and other vaccines[6] and also following anti-tetanus inoculation.[7] A case has been reported in metabolic disease with hematoporphrinuria.[8] Pregnancy has been indicted as a factor[9] and it has been reported as coming on during or following infections including typhoid fever[10] and malaria. It has been reported in association with herpes zoster,[11] lymphogranuloma without lymphogranulomatous infiltration of the cord[12] and in leukemia with leukemic infiltration of the cord. Rabies[13] and anti-rabies vaccine[14] have also been indicted as causes of acute ascending paralysis. There are several other perhaps more common causes. For example, ascending paralysis can be an unfortunate complication following spinal anaesthesia and due to an ascending myelitis presumably on a toxic or anaphylactic basis. It can be due to syphilitic disease of the spinal cord or it can result from pyogenic infection producing an epidural abscess. It can also be due to metastatic disease of the vertebral column or of the spinal cord itself. An ascending character to the paralysis is often seen in acute infectious polyneuritis and in some cases due to peripheral neuritis due to toxins, alcohol, vitamin deficiency, etc. Just recently there has appeared a report of fish poisoning occurring at Fanning Island in the Central Pacific.[15] Cats, dogs, and domestic ducks eating these poisoned fish develop ascending paralysis in a few hours while humans develop numbness and tingling over the entire body with great muscular weakness. The very interesting fact is that the ten species of fish now poisonous were eaten without

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## SOCIAL INSECURITY

THE NEWS HEADLINES on July 4 reported that the residents of England and Wales would henceforth "stop worrying about doctor bills" as the national health service was being started. A bright picture was painted of the happy lot of the British population as having the best of everything in medical and allied health care—for free, or for "small sums" deducted from weekly salaries. Again the Socialist State was pictured as utopian, and the American public was exposed to the subtle propaganda of ideal existence in the welfare state of Great Britain.

Few Americans are fully conscious of the fact that they are heavy contributors to the financial structure which makes the Socialism of Britain apparently workable. Consider what a difficult position Britain would be in without Marshall Aid. As the British Information Services has reported,

> ". . . To mention only a few effects, Britain's rations of butter, sugar, cheese and bacon would have had to be cut one-third; there would have been less meat and eggs; tobacco would have had to be cut by three-quarters; there would have been less footwear and cotton goods; house building would have been reduced by 50,000 homes a year; and, with the general shortages of raw materials, unemployment might have increased to one and a half million and more."

Yet this is the country that initiates its overall new social insurance and social security services which the American press exploits as costing but "a small sum" from each worker. A small sum indeed. But what of the increases in Government expenditure estimated for 1948-49 by Great Britain which will amount to $780,000,000, of which education will take $120,000,000, housing $56,000,000, and the *National Health Service $572,000,000?* No mention of these staggering outlays, in addition to the other taxation, is made when picturing the "cradle to grave" security that is to be so grand at supposedly low cost.

As has been shown clearly in studies in all lands, the health of a nation depends as much, if not more, on nutrition, housing, sanitation, recreation, and many other vital factors as it does on medical and hospital services. But consider the food position alone of Britain as the Government expands its social services this summer.

Before the war the daily food intake for a Briton averaged 3,000 calories. In 1947 it fell to 2,880, and it was scheduled to be cut still further to 2,681 per head in the first half of 1948. Translated into nutritional terms, there is a fall below pre-war protein intake in 1948, and a severe fall in fat intake. Meanwhile in the United States the average per

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capita daily food intake is close to 3,400 calories.

Even with the Marshall Aid there is no suggestion that the British position will be eased for the remainder of this year, and the hope of every Briton as he tightens his belt is that the situation will not become any worse.

Yet this is the country that paternally expands a "security" program in an effort to cover up other shortcomings in the economic pattern, and all the whiles enslaves further thereby the entire population.

Only the European Recovery Program, supported by American money, will avert rising unemployment in Britain. Although the local employment exchanges of the ministry of labour and national service operate under a procedure that is basically by voluntary consent, yet the Government has certain directive powers which allow it to compel all workers seeking employment, and all employers seeking workers, to do so through the government exchanges. The Government has only once used its further authority to require persons who are not gainfully employed or who are in non-essential work (as determined by the Government) to register at the employment exchanges where they are offered a choice of jobs "more in the national interest." Nevertheless it has that whip available for use at its pleasure.

Is this the kind of security of free choice of work that the labor organizations of America would welcome as they hail the expansion of European social security programs as models for America to adopt?

Originally social insurance was intended for the very poor. It was considered as an aid during periods of economic distress, not complete aid, but partial assistance to ease the burden. But that concept has been altered. Today the talk is overall security to meet all costs, thus destroying the personal initiative, leaving in its place a dependence on the State to protect against the economic and social uncertainties of modern civilization. By the simple expedient of paying a fifth or a quarter of our annual earnings into the Federal government we are led to believe that we will have security against the hazards of life—though cash sickness benefits, unemployment payments, free medical and hospital care, old age pensions, and maintenance of our dependents when we die. As we are lulled into dreams of an utopian future, even as the Britons, federal and state legislation is constantly being prepared to hold us fast under government controls even when we finally awaken from our slumbers.

In this, an election year, we hear great promises —pledges to increase the social security benefits on the national level. We should recognize clearly in such promises that politicians have been quick to seize upon, for tax purposes as well as for votes to gain office, these ideas for the promotion of the Welfare State.

When will we awaken to the importance of making a complete study of our existing social security program? Of what real value is it? Where has the money gone that has been paid into the fund? How will even the present benefits be paid to the potential claimants ten or fifteen years from now?

The American Bar Association initiated action recently with a resolution which reveals that 99.5 per cent of the funds thus far accumulated under the Social Security Act have been spent on public projects, and that special non-negotiable Government obligations have been substituted for "86.26 thereof." The resolution also reports that "such part of such sum as may be necessary to meet extraordinary demands which may arise in the future will of necessity have to be raised by the sale of negotiable bonds or by the imposition of taxes to redeem the non-negotiable obligations."

Briefly, then, the money paid into the system has been spent. When money is needed to meet the demands, the same people who have been paying will have to pay their share to reactivate the fund —in other words a double taxation.

What kind of security is that for today's worker?

The propoganda for socialism strikes a ready response from many of our people who are innocent idealists motivated by an intense humanitarian urge to give everybody a fair chance. They are honest people for the most part who become impatient with the attainments of our American system and think that by the compulsion of Government we may speed up the attainment of goodness. These people are willing workers for politicians whose motives are only for a bigger central Government in which they will be the masters.

Therefore, as we read and hear of the European socialistic experiments in extending social insurance, and as we are bombarded by the political addresses and promises in our own country in the coming months we should be alert to the full implications involved.

Mr. Clement Attlee has stressed what he calls the democratic character of the British program by stating that:

> "We have rejected all short cuts and suggestions that by laying aside our democratic principles for the time we can more rapidly achieve Socialism; the methods by which the end is sought profoundly affect the nature of the end attained. A society changed by undemocratic methods loses the habit of democracy; a society that casts aside in the struggle all moral principles loses those principles. Socialism is a way of life, not just an economic theory, and in the process of achieving socialism we have all got to grow into being fit citizens of the state."

We in America are greatly concerned over the

threat of Communism, but we should not accept the mistaken idea that socialism is a foe of communism. On the contrary, the economic ideals of both are identical, for both believe in government ownership and operation of the means of production. As Henry Hazlitt has so well stated, "Once this ownership and operation become sufficiently extensive, the government has economic life-and-death powers over the individual. It can say where he must take his job, what job he must take, or whether he can take a job at all. And once the government has this power, the liberty of the individual has in fact, if not in form, disappeared. As Alexander Hamilton pointed out in the Federalist Papers a century and a half ago, 'A power over a man's subsistence amounts to a power over his will'."

Both the major political parties in the United States have for vote getting purposes advocated in their national platforms the development of social insurance programs through taxation. But one by one the States are asking for a redefinition of the functions of the Federal Government and for the restriction of its activities. The States are beginning to realize that the wealth that is taxed by the Federal Government is within the boundaries of the 48 states and could be taxed directly by them and the revenue spent by them and large sums saved thereby. No better illustration of this can be set forth than the fact that the recent income tax reduction equals in nearly every one of the states the cost of their schools and libraries.

As doctors we are rightfully concerned about any proposal in any form for the nationalization of medical services. As citizens we are more deeply concerned that the great numbers of our population may become misguided idealists who will be used by politicians who would extend their powers through a centralized authority at the national level. We would caution all to be mindful of the statement of Daniel Webster in the early days of our Republic:

> "There are men in all ages who mean to exercise power usefully, but who mean to exercise it. They mean to govern well, but they mean to govern. They promise to be kind masters, but they mean to be masters."

The vast majority of the medical profession have no desire to live or to practice in a servile state.

## WAR MEMORIALS

During World War I the Rhode Island Medical Society lost one of its members while he was in the service of the country, for Lieutenant William H. Buffum, MC, USNR, died in Liverpool, England, in 1918 while on service with the Rhode Island Unit. His memory has been fittingly perpetuated by his fellow medical officers of Navy Base No. 4, the Rhode Island Hospital Unit, by the erection of a bronze tablet in the Medical Library.

In World War II the Society lost by death four of its Fellows who had answered the call to service with the armed forces. By action of the Council the Board of Trustees has been authorized to prepare and have erected a memorial tablet in the Library to the memory of these physicians.

The tablet has been completed and now occupies a prominent position in the main corridor of the Library that we may always be mindful of the supreme contribution made for the safety and peace of these United States by Drs. Arthur Martin, Raymond Luft, Irving Blazar, and Milton Korb.

As we view these war memorials may we offer the prayer that they shall be the last we shall ever have reason to erect, and may we hope that the peace for which these physicians have given their lives may extend far, far into the future.

## STATE CANCER CONFERENCE

Reserve the date of Wednesday, November 17, 1948 for a meeting at the Rhode Island Medical Society library.

That is the urgent request to every physician in Rhode Island from the Cancer Committee of the Society, and it is given this early notice so that conflicts in meetings and appointments may be avoided.

Conscious of the importance of medical education in the diagnosis and control of cancer, the newly organized committee of the Society, under the direction of Dr. George Waterman, has decided upon an all-day meeting on November 17 at which outstanding local and national authorities will be invited to present scientific papers on the latest developments in cancer research and treatment.

The plan certainly warrants the support of the membership of the Society. The tremendous amount of publicity that is annually directed to the public relative to cancer places an additional requirement upon every physician that he be versed in the latest medical techniques and studies in cancer diagnosis. The program planned for November 17 will provide a home-town postgraduate course that no doctor should miss.

In addition to its state conference, the cancer committee is considering the distribution monthly of printed clinical material on cancer that will form the basis for a valuable reference text for every member of the Society.

**THE JOHN F. KENNEY**
**ANNUAL CLINIC DAY**
**Wednesday, November 10**
**at**
**THE MEMORIAL HOSPITAL**

# THE DOCTOR'S ROLE IN COMMUNITY PROGRAMS*

HUGH R. LEAVELL, M.D.

The Author. *Hugh R. Leavell, M.D., of Boston. Professor and Head of the Department of Public Health Practice, Harvard University School of Public Health; Formerly Assistant Director, Division of Medical Sciences, the Rockefeller Foundation; President, The Massachusetts Central Health Council.*

I SHOULD LIKE to discuss the problem of the "Doctor's Role in Community Programs" from three points of view.

First, the doctor must know what constitutes an adequate community health and welfare program. He must be able to make a diagnosis, just as he would in the case of a patient.

Secondly, he must assume more responsibility than the average citizen would be expected to assume for community health and welfare activity.

Then the third point is that the doctor's wife should carry her portion of responsibility for community health and welfare.

It seems to me important for us to recognize that we, as doctors are, as the newspaper people have told us, an independent group. Many of us have gone into medicine because we thought it would be at least one of the few independent sort of jobs that were left. We have habits of authority which are quite natural to us in connection with dealing with our patients.

However, when we come to surveying the community, we must acknowledge we are laymen in the matter of community organization. We have a voice in community organization. We are part of the community. But, unless we make ourselves experts in the field, we are no more entitled to speak authoritatively about community propositions than most any one else.

To acquaint ourselves with the community's needs, obviously one of the first things we must do is to make an examination or survey, and try to find out what the needs and the resources are.

What are the agencies involved?

What are the methods used in referring patients, or clients, as the social workers call them, from one agency to another?

How do these things operate?

There are people who make a special business of surveying various agencies and communities. There are agencies, such as certain branches of the American Medical Association, the American Public Health Association and so forth, which may be called in to provide expert help in diagnosing the community.

I think we need to have certain standards for what we will consider an adequate agency.

What are some of the characteristics of an agency which we might reasonably expect would be qualified to serve the community in the proper sort of way?

Today we should expect trained personnel and people working at their jobs full-time. I have had personally the experience of being a part-time health officer, and I know that it doesn't work. There was never a time when there was an important budget or committee meeting associated with the Health Department's work, that my favorite patient didn't turn up with an acute emergency, so right then and there, it was necessary to decide whether it was going to be the patient who would get first consideration or the Health Department.

In this modern day, I believe we cannot expect adequate service from people working in these agencies on a part-time basis.

There must be adequate finances to operate, if we are to have trained personnel, and expect them to give their whole time to the activities, because we must be able to pay adequate salaries.

It is estimated that to do a reasonable public health job, (one segment of the community program) it will take $2.00 per capita. To provide hospitalization, we can figure that the average person requires one day of hospital care a year, and whatever a day of hospital care is quoted at on the current market, we will have to provide for the hospital share, and so on, down through the other aspects of the work.

I think we must say that to have adequate community agencies, they must be given freedom from

* Presented before the New England Conference on Public Relations under the auspices of the Council of the New England State Medical Societies, at Boston, March 7, 1948.

political interference. We can't afford to run programs of this sort with the necessity of a turn-over and entirely new personnel when there is a change in local administration. We must have, therefore, a merit system which provides security for the community rather than life tenure for the employee, which, of course, was the original objective of civil service. Somehow that has gotten to the point where it is presumed to provide life tenure for the individual rather than a life protection for the community.

Agencies in our local communities must be responsible to local desires. If you look at the National Health Program of the American Medical Association, you will see running through it emphasis on the importance of giving local communities the opportunity to have a voice in services provided by local agencies and through other agencies, state and Federal as well.

If the agency be a governmental one, of course it must have sufficient legal authority to do a proper job. The Health Department is one of the outstanding examples. It must have certain legal authority to enable it to discharge its functions. That authority may almost never have to be used, but it should be available.

Those, then, would be some of the criteria for adequate agencies.

Just to take an example in the field of public health, how are we going to get trained personnel doing full-time jobs, with adequate finances to run a balanced health program, requiring public health nurses, sanitary engineers and people of that sort, in many of our small New England towns? I think this is a problem with which we must deal very, very carefully and rather promptly, if we are going to have a proper public health set-up in New England, because a town of 700 or 2,000 people simply can't afford to have a full-time medically trained public health officer and the other things that would be necessary to make an adequate staff. There must be some method found for uniting these towns for health purposes just as it is necessary to unite them in the school districts and things of that sort.

Another aspect is the proper arrangement for planning and coordination. As communities grow larger, the number of agencies concerned with health and welfare begin to multiply, and we need some coordinating mechanism.

Now, the best mechanism that has been found, as far as I know, is the community council, with the various committees on health, welfare and other aspects of community activities; the health council, which would be composed of representatives and officials of voluntary agencies and of the general public.

I hope that as we talk about this whole community program, we will remember that the general public needs representation. We mustn't always be thinking just of agencies, such as the medical society, the health department, the hospital, the visiting nurse association, etc., but the general public, the consumer of what we, as medical people, are producing. They should have some voice in the things we are turning out for them. In health councils, and activities of that sort, they may have opportunities to express themselves. These health councils should be not mechanisms for coercion, but places where people can get together and talk over their problems, and reach a common decision. They should be sufficiently representative of the community so that when a decision comes for example, that the health department should take such-and-such an action, the health department wouldn't feel necessarily bound to do that, but it would feel that if the action were not taken, the community would want to know why.

I think it is important for us to remember that health councils of this sort, representative of the community as a whole, must not be thought of as a tool that may be used for some particular purposes.

I can give you two examples. The National Health Council has been interested in promoting the formation of local health councils. At the moment, one of the reasons given for this is so local health units may be developed, with people serving as full-time health personnel.

Now, that is a perfectly good objective, but it ought not to be the primary reason for forming the health councils.

Again the American Medical Association has suggested that local health councils be formed to promote voluntary health insurance. It may be they would be useful in that. But, in itself, that is not the proper objective of local health councils, either.

The purpose of a local health council is the community's needs and problems, and help to find solutions for them, wherever they may be. It should not be used as a tool for the National Health Council, the American Medical Association, the A. P. H. A. or any particular group other than the community it represents.

Another thing that we need to know and provide for in our community program is that of evaluation. We pay a certain degree of lip service to periodic examinations for our patients. Our communities should actually have a periodic evaluation. In the health field, that is about as scientifically possible as in any field of community activity at the present time.

What about the doctor himself?

How can he implement these ideas through the medical society and individually?

Well, I think you have a superb example in this

*continued on next page*

meeting. For, we are having a scientific meeting on community problems. We are not talking about subluxation or the sacro-iliac synchondrosis, but we are trying, scientifically, to approach this problem of the community and public relations.

Why can't we have scientific programs about community health and welfare problems, and by that I mean programs where we attack the questions, not with preconceived ideas, but with open minds, just as we would expect our audience to have if we were going to present a medical, scientific paper on some technical subject.

We need to have in our medical society committees studying health and welfare problems; committees on public health and medical care and medical education.

I think that anyone familiar with medical education today will recognize that relatively few medical schools are giving students proper instruction in how people live together in a community, and how they find ways to meet their medical and health needs from the community's standpoint, the "social" aspect of medicine. Somebody usually sticks "ized" on that and makes it an entirely different thing. But by that I mean study of community health problems and how they may be solved, just as an individual has his health problems and how he has them solved.

We are especially happy in Massachussetts to have John Conlin, whom we were fortunate enough to have as a student at the Harvard School of Public Health during the past year. He made some real contributions to us there, and we feel that he can help to understand some of the problems that public health people have and that the community has, because he has gone at it from the standpoint of trying to learn about these things. More of that needs to be done in medical schools than is being done at present. We need more interest in legislation. We can whip up a tremendous show, as has been demonstrated with reference to the Nolen-Miles Pound bill, and it is a great thing that we can do that. But, by-and-large, it is difficult to get members of the medical profession adequately represented in reference to legislation.

What about the doctor as an individual citizen?

Well, he can serve as a member of the board of health, the board of voluntary health agencies and health councils. He can do a job of community education. If he knows about these problems, and is sympathetically concerned towards them, he can do a great deal by talks with his patients. I remember hearing the Dean of the Ohio State Medical School tell about how he got six million dollars from the Legislature for his medical school. He simply had all the graduates of Ohio State talk to the members of the Legislature in each of the various districts. Here were the doctors talking to their patients about community problems, and the State Medical School gots its appropriation.

Radio and newspapers have been discussed very well today. I had one experience with a medical news column, which was run on a daily basis in a local newspaper, the articles being furnished by various members of the medical society. They did have to go through a little editorial process, but the project ran on for about three years, and it was rather useful.

Also, doctors can serve as members of a speakers' bureau, working through our various social and civic clubs.

All these are things that we can do for community education.

Now, as to our professional services: How do we make those available in a community program?

Well, of course, first through providing preventive medical services for our own private patients; there, we are rendering a definite community service. I shall not go into detail about that, except to point out that I think we do need to get some new ideas about the periodic health examination. Let us find out what it is worth, what aspects of it we can apply on a broad scale to our patients, and stop talking about how we ought to do it, but not doing it, as I am sure most of us don't.

We can serve in other ways; as school physicians, working in child health conferences, cancer clinics, clinics for crippled children.

We can do a community job by cooperating with our health department in fulfilling our legal requirements, by promptly reporting communicable diseases, births and deaths.

We can even take a little responsibility which we are not legally required to do, and report unsanitary conditions and welfare needs that we may run across in connection with our trips about the communities.

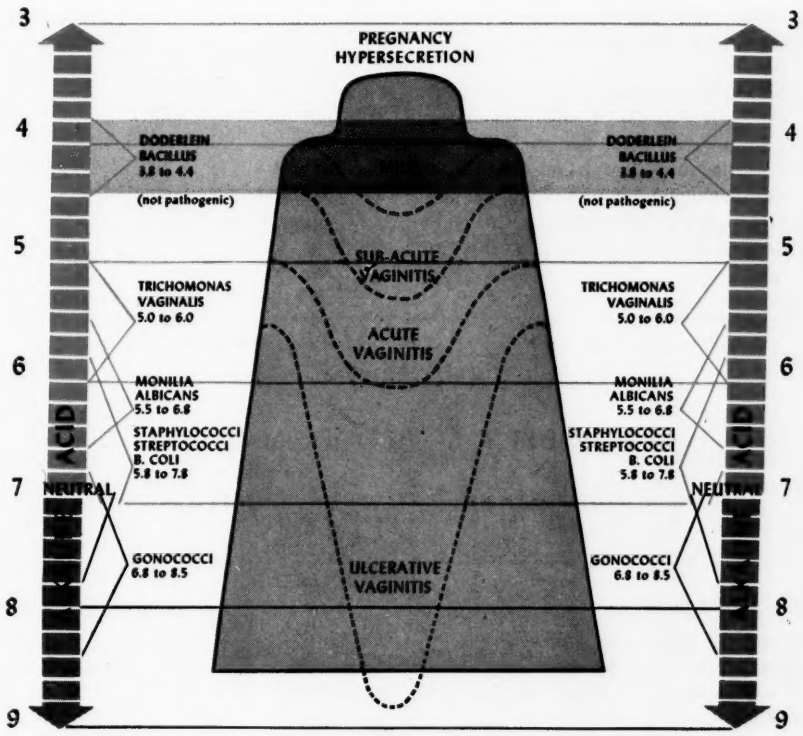
Then, I think that the doctor's wife can do an important job in this community program. She has contacts with patients which, many times, are more crucial than those we have ourselves, and certainly she gets little enough recognition for them, I am afraid.

Now, through the medical society auxiliaries, which I am glad to see are being strengthened, the doctors' wives will have opportunities to make themselves felt more and more; also as members of their particular social and civic clubs, especially the parent-teacher groups. And then I think the doctors' wives have an opportunity to do a rather important community job for us by training our children in the community's responsibilities which they are going to have in the future.

I haven't given you a bit of new medicine here.

I haven't even mentioned anything that you didn't already know.

*continued on page 566*

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**SEARLE**

RESEARCH IN THE SERVICE OF MEDICINE

**DOCTOR'S ROLE IN COMMUNITY PROGRAMS**

*continued from page 564*

But, I do hope that perhaps I have indicated some lines along which I think it is possible for the doctor to work.

In introducing me today, your Chairman made one mistake. He said that Dr. Leavell has time enough to do a number of these different things. Well, I don't have the time, and I know that you don't either. But, on the other hand, if you are interested in health matters and in the health problems of your community, you will find the time to do those things, and you will find the time to become better acquainted than the grocer or the undertaker with how the community anatomy and physiology operates in the health fields.

And by the way, one of our newspapermen, perhaps both of them, spoke about the problems of understanding between the medical man and the journalists, and one of the problems was the deadline. I just want to say that I think the undertakers could understand deadlines much better than the doctors!

## DISCUSSION


### ROBERT O. BLOOD, M.D.

*Former Governor of the State of New Hampshire*


I AM VERY HAPPY to come here and get a chance to talk to doctors. I think the situation now is somewhat similar to the minister who berated his parishioners for not going to church. The ones he should have talked to were not there. And that is true today. The ones we should talk to on this type of subject are not here.

The New England Council of State Medical Societies is doing a grand job, and it should be complimented on considering this subject.

A newspaper man got hold of me this week, and wanted to know if we, in New Hampshire, were doing anything on public relations of the doctor. This paper which you have just heard is an excellent one, and it is one of the types of papers that you cannot disagree with; it is difficult to add to, also. And certainly, I would not want to change it.

The physician is in a rather peculiar position at times, and we have few laymen who are placed in the same dual position.

This reminds me of a youngster five years old who said to his mother, in 1940, when I was first running for Governor and I was going out with his daddy in the evening, that he wanted to stay up until I got there, as he wanted to see me before I went out. I don't know what sort of an individual he thought he would see. When I came, I overheard him say to his mother:

"How can a man be a doctor and a Governor, too?"

I think that sometimes we medical men get an idea that we are quite different from the layman; because we are doctors, we are nothing else. Someone already has said that we must remember we are laymen, also. When the doctor gets that into his system and his mind, he knows that he should be interested in health and welfare matters, our hospitals and hospital programs, etc. Then we are a great deal better off, and public relations will be much better.

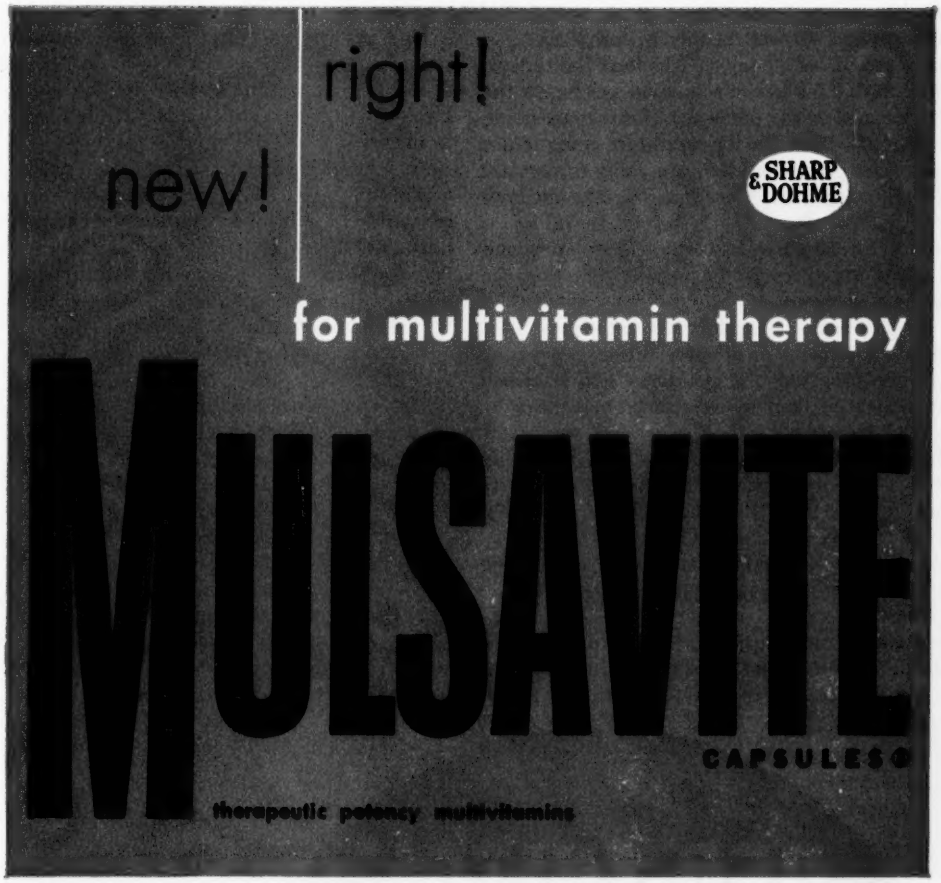
The people who get things done in legislatures, community councils and the like are the people who put the greatest amount of pressure on and present their case better, in order to make it appear that they are the majority of the public. And may I say, with possibly a little criticism of the medical profession, that it is not the medical profession that is usually doing that.

I was very much interested in the statements with reference to the press and public life. A man who is in public life has to meet the press, and if he doesn't tell them what they want to know, they will say something that he doesn't want them to say, usually, so you might as well tell them the truth.

As to dead-lines. I have never, in all of my public life, had a newspaper break a deadline. If you don't give them a deadline on the story, then you will find that they will get something that you want to keep as an important announcement, in the future, appearing before you want it to appear, and the story is not the way you wish it to be.

I should like to make an appeal to you as medical men and as missionaries back home to the other medical men of our New England states, to take a position of leadership in this health field, because that is the place that we, as physicians, are best

*continued on page 568*

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1. Haven Emerson: Journal Lancet, *57*:1, 1947. 2. Registered trademark, Sharp & Dohme. 3. M. Clin. North America 27:567, March 1943.

MULSAVITE

## DOCTOR'S ROLE IN COMMUNITY PROGRAMS

*continued from page 566*

qualified to be the leaders; in fact, no one else is qualified to lead, except the medical profession.

Then, too, if we all say: "I haven't the time to do this or that; I haven't time to belong to the Health Council or any other agencies that are doing a health job,"—then the lay people are going to use the health programs and they are going to regulate medicine, and you and I are going to take the laws they make.

One of the best ways to handle legislation and community activities is the relationship that the doctor just spoke of.

If the individual physician talks to the individual politician, whether it is about a music program or any larger program, the politician will be much more influenced than by several letters either by doctors or laymen.

I have been very much interested, also, in looking up things with reference to the question on where we are going in medicine, and what we are going to do, for that is a vital question.

We all know, I believe, that we are never going back to the old times; we are going forward to new times.

So I looked up the first law that established a Board of Health in our State of New Hampshire. The law was passed in 1881, and in that act, it stated that there should never be spent in any year in the State of New Hampshire for Board of Health purposes any more than $3,000.

Last year, in the State of New Hampshire, we spent in State, Federal and Public Health matters, $577,000 plus, under the direction of the Board of Health. We spent in a welfare field closely allied to medicine $6,000,000 plus.

And, speaking of welfare, we in the public health and community relations and community programs, must always remember that welfare is equally important almost with medicine. And, what happens in the welfare field of sanitation, community relations, public health, etc., will make or break the public health situation in that community.

This is a subject which we could spend much time on.

I just want to appeal to you to continue this type of work, Dr. Ruggles. I want to tell you that I think you are doing a great service to the public, and may we, the doctors of today, do what the doctors of the olden days used to do, when education was less generally well distributed, and the two men in the community who were the leaders of the community were the mnister and the physician.

If the physicians truly become leaders, not alone in health programs, which are vital, but in health, welfare and public programs, then we won't need to worry about socialized medicine.

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Sempylex

## MODERN HEALTH PROGRAM

*concluded from page 554*

of the wealthiest states, we shall not receive what we consider is duly ours in part return for money taken out of Rhode Island by Federal Taxes. Most of the Eastern States fall in this category.

And so Health Programs roll on in keeping with the times and at the same speed. You gentlemen are busy in your chosen profession of caring for the sick and probably have not fully realized the changes in the environment which medical science and social reorientation have brought about in this industrial age and socially minded country of ours. Are you losing prestige and authority in that broader field namely, the social aspects of disease? Is the current trend toward hospitalization of your patients and the desire by your patients of this hospitalization causing you to lose touch with the family, the home, and the personal and economic environments of these patients? If you are losing this home and family contact with your patients social agencies are taking over. As times goes on medical practice will center more and more around the modern hospital. The extensive hospital construction program now coming under way in the United States with its proposed integrated system and close functional affiliation between health centers, diagnostic clinics, community and regional hospitals, will distinctly influence the pattern of medical practice as well as the distribution of qualified physicians. The modern hospital may become the center of extending health education, and preventive medicine will be one of its most important services. In many fields of preventive medicine the Public Health Administrator and the practicing physician can meet on common grounds and with a common understanding and a cordial relationship obtain the ultimate goal of optimum health for the individual and the community. Let us hope that voluntary hospitals and private medical practice will not become history in the United States as they will in England and Wales on our Independence Day, July 4, 1948.

## ACUTE ASCENDING PARALYSIS

*continued from page 558*

any ill effects until the American Army dumped war material in this area in July 1945. The presumption is that the offending agent now rendering the fish poisonous must be some toxin—and that the ascending paralysis produced by eating these fish is on a toxic basis.

There is much to suggest that in contrast to the heterogenous group of etiologies previously mentioned the truly acute form of ascending paralysis that may properly be referred to as Landry's Paralysis may be on some infectious basis. This has been suggested by various writers including Taylor and McDonald[16] who have expressed the opinion that conditions variously termed encephalitis, Landry's paralysis, poliomyelitis, infectious polyneuritis, neuronitis, myelo-radiculitis, and acute benign infectious myelitis are all due to a common infective agent and should be regarded as varying manifestations of one disease.

That the common infective agent in acute ascending paralysis of the Landry type may be a virus has been suggested by several writers although in the present state of our limited knowledge regarding viral disease no definite proof is available. This theory is based upon the fact that Landry's paralysis is usually preceded by what appears to be an acute systemic infection with upper respiratory and gastro-intestinal symptoms. These include sore throat, nausea, diarrhea, great exhaustion, general malaise, and aching of muscles. At this stage of the illness a diagnosis of "grippe" is often made. Temperature and blood counts are usually normal although some cases may have slight fever. Because of this general background which we commonly associate with virus infection, and because of the fact that the paralysis develops quickly at this point, the theory that Landry's paralysis may be a viral disease has been suggested. Whether the virus responsible for the general systemic signs of infection proceeds directly to attack the nervous system as it does in poliomyelitis, or whether this initial virus infection merely activates some already present but hitherto latent infective agent in the nervous system cannot be answered in the light of our present limited knowledge. So much for etiology, let us now turn to the contributions of the pathologist to our knowledge of acute ascending paralysis.

Post mortem studies in the reported cases show such a variety of pictures that pathological diagnosis grossly or microscopically is impossible. In his original monograph Landry stated that one of the diagnostic criteria was an absence of pathologic changes in the nervous system. Subsequent studies however have revealed that this is true in only about thirty percent of cases. The fact that so many cases present no pathologic findings sufficient to explain the widespread paralysis has led to the expression of several possible explanations. One is that since most cases die quickly, the absence of demonstrable lesions may be due simply to the fact that they did not have sufficient time to develop to the extent of being microscopically visible. Another theory is that the paralysis may be due primarily to some difficulty at the myo-neural junction similar to that which occurs in cases of curare poisoning and of botulism where we get quick prostration, extensive weakness, paralysis, and sudden death and yet examination of the nervous system reveals no changes that are pathognomonic. Hassin[17] commenting on the absence of lesions in the central or peripheral nervous system suggests that studies of muscle tissue may reveal significant facts explaining the paralysis.

The majority of cases however do show lesions and these are of such a varied character that it is impossible to assign any specific pathologic picture to this disease. Neither can the pathologic changes in the nervous system be accurately predicted on the basis of the clinical picture presented. A review of the published pathological reports indicates however that the presence of temperature, marked objective sensory disturbances, and loss of sphincter control is generally followed by the finding of definite lesions.

The lesions found in the nervous system range from minimal pathologic alterations to those indicating a severe inflammatory or degenerative process. They likewise vary greatly in location. In a case reported by Dejerine[18] changes were found in the anterior roots while no changes were found in the cord. Drake[19] on the other hand reported a case where the anterior and posterior roots were normal while the anterior horn cells and Clark's column showed mild degenerative changes. Demme[20] reported a case in which the cord showed no pathology except for lymphocytic infiltration of the meninges and in the root entrance zone while the peripheral nerves showed degenration of the axis cylinders.

In some cases, marked pathologic alterations have been found in the cord, brain stem, and brain. Of the changes described in these regions none were specific or common to all. Read, Conley, and Conley[21] report heavy perivascular infiltrations of lymphocytes and plasma cells in the grey matter of the spinal cord and medulla. A number of writers have reported mild chromatolysis of some of the ganglion cells in the cortex.

Thus summarizing the pathologic reports we find that there is no uniformity whatever in either the frequency, severity, character, or distribution of the lesions found. However in most cases where

*continued on page 574*

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## ACUTE ASCENDING PARALYSIS

*continued from page 572*

definite lesions were found the anterior horn cells or their processes (nerve roots and nerves) were most frequently involved. In a sense therefor one might say that inflammatory lesions akin to those of poliomyelitis predominate. There is nothing specific about the total picture however and the various types of lesions described cannot be logically regarded as different stages of a single process. From this one must assume either that acute ascending paralysis is caused by a variety of agents — or that constitutional or other factors still unknown determine individually different nervous system reactions to a common, perhaps infective, agent. Future research in the field of virus disease may shed light on this subject.

Summarizing to this point it appears that the causes of ascending paralysis in general are many and varied and include those often suggested as the causes of neuritis such as infection, bacteriotoxins, deficiency states, disorders of metabolism, etc. There is also much to suggest that the truly acute form for which the terms acute ascending paralysis or Landry's paralysis should be reserved may be on some infectious and viral basis and perhaps related to poliomyelitis. It also appears that at least one of Landry's original criteria should be revised for the pathologist has amply demonstrated lesions to be present in the nervous system in a high percentage of cases. While not specific, these lesions show certain general characteristics suggesting again that acute ascending paralysis and poliomyelitis may be related.

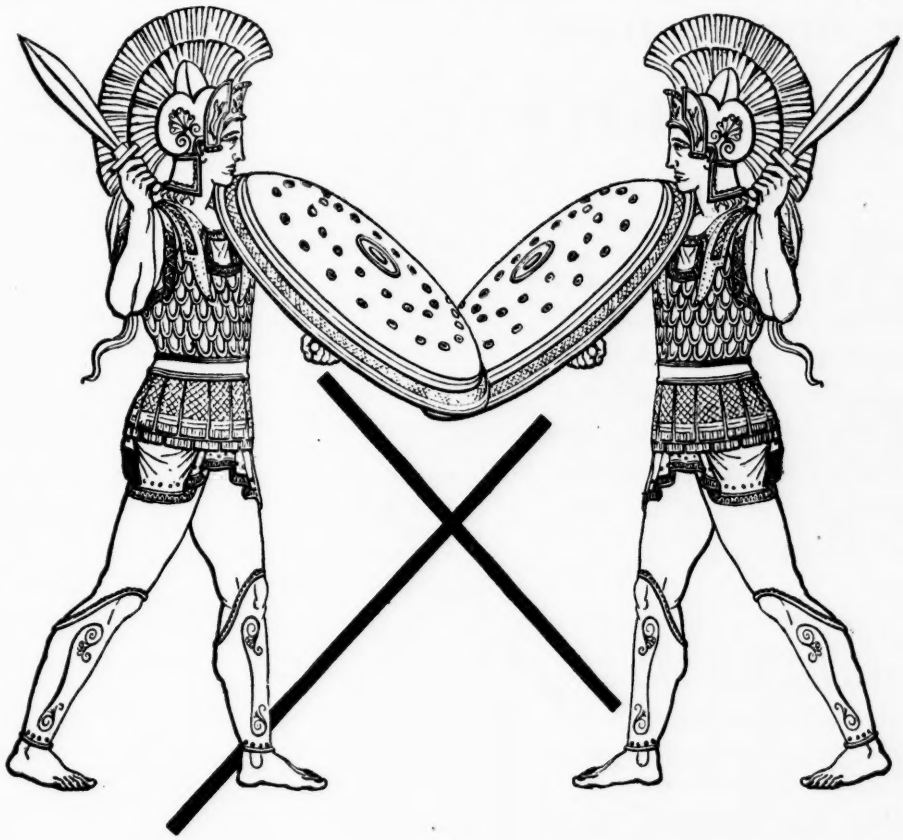
A typical case once observed is never likely to be forgotten. The first symptom is that of numbness and tingling in the hands and feet. This usually develops within seventy-two hours of the signs of systemic infection previously described. The term ascending paralysis is in a sense a misnomer for an ascending character to the symptoms is not essential to the diagnosis. Thorner, Alpers, and Yaskin[22] in a review of the reported cases found that approximately fifty percent of cases showed a downward progression of symptoms while in some cases the symptoms appeared simultaneously in hands and feet. In any event the parathesias are quickly followed by muscular weakness which progresses to flaccid paralysis with abolition of the tendon reflexes. After involving the extremities the weakness and paralysis affects the abdominal and thoracic groups. Weakness of the intercostal muscles causes difficulty in breathing and paralysis of these muscles may develop so quickly as to cause sudden death at this point. The paralyzing involvement may ascend to produce occular paralysis, aphonia, inability to swallow, and death due to paralysis of vital medullary centers. Characteristically cutaneous and deep sensation remains relatively intact and sphincter control is usually not lost.

The length of time that elapsed from the time of onset to the establishment of the previously described picture of extensive paralysis has been recorded in 87 of the reported cases. In 9% this was twelve hours, in 11% it was from twelve to forty-eight hours, in 31% it was from two to four days, in 33% it was from four to ten days, and in 15% it was longer than ten days.

The prognosis must always be viewed gravely. Only about twenty percent survive. Death is practically always due to respiratory paralysis. Hence it is most important that these cases be watched constantly and closely and that a respirator be held in readiness. The use of a respirator however is not always a life saving measure. Its value is greatest where the paralysis is of the respiratory muscles such as the intercostals and due to damage of the anterior horn cells. It is of relatively little value where the paralysis is of the medullary centers themselves. In those cases where there is paralysis of the pharynx with collections of mucous in the respiratory tract the use of a respirator can be definitely harmful.

Those who survive the critical maximum of paralysis may begin their recovery in a few days. It would thus appear that the nervous system is quickly overwhelmed by some pathogenic agent in the beginning of the disease but that if the nervous system is able to survive this initial assault successfully the prognosis is usually good. Recovery in some cases is very rapid and after a few days to a few weeks the patient may be well except for some general exhaustion and sluggishness of reflexes. In other cases recovery may take months. Residual paralyses or muscle wastings do not usually occur. The quick transition in some cases from maximum paralysis to complete recovery in a short period of time suggests that either the pathogenic agent is quickly eliminated or ceases to act, or that certain nervous systems are able to withstand this severe but temporary assault and resist

*continued on page 576*



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## ACUTE ASCENDING PARALYSIS

*continued from page 574*

it before irreversible damage is done to the neurones.

The problem of differential diagnosis is not always easy of solution. The main differential is that between Landry's paralysis, infectious polyneuritis, and acute anterior poliomyelitis. The differential between Landry's paralysis and infectious polyneuritis is practical in terms of the considerably better prognosis with the latter. Differentiation however can be difficult clinically as was originally pointed out by Osler in 1892. In fact the differentiation in some cases may be impossible and it may very well be as is contended by some writers that Landry's paralysis is but a rapidly progressing and highly fatal form of infectious polyneuritis. In the diagnosis of acute infectious polyneuritis much significance is usually attached to the constituents of the spinal fluid. Guillain, Barré, and Strohl[22] first described an elevation of the protein content with little or no increase in cells (albuminocytologic dissociation) often occurring in infectious polyneuritis. This elevation of protein may range from 70 to 1000 mg. or more. Albuminocytological dissociation when present is therefore helpful in distinguishing Landry's paralysis from infectious polyneuritis for in Landry's paralysis the spinal fluid is usually normal. Unfortunately albuminocytologic dissociation is not always present in the early stages of infectious polyneuritis. Some cases of infectious polyneuritis have been reported in which the protein determinations were rather low at the onset of the illness attaining the typical high values only later in the course of the disease. This situation makes the differential between Landry's paralysis and infectious polyneuritis difficult and in some cases impossible early in the course of the disease. In general the findings of a high spinal fluid protein with little or no increase in spinal fluid cell count suggests more an infectious polyneuritis —and this usually means a better prognosis, for while only 20% recover from the Landry type of paralysis about 80% recover from infectious polyneuritis.

Acute anterior poliomyelitis does not usually offer such difficulties in differential diagnosis. Poliomyelitis has a distinct seasonal incidence usually from July to October while polyneuritis and acute ascending paralysis due to viral infection are most prevalent during the colder months of the year. Note that the case herein reported had both attacks during the spring of the year. Poliomyelitis is usually epidemic while polyneuritis is sporadic. Poliomyelitis occurs mostly during the first two decades of life while polyneurtis occurs in all age groups. While in most instances polyneuritis is preceded by an infection the systemic manifestations

*continued on page 578*

# 44...

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X-ray sickness
Pregnancy
Motion sickness

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Cardiospasm[2]
Pylorospasm[2]
Spasm of biliary tract[2]
Spasm of colon[2]
Peptic ulcer[2]
Colitis[2]
Biliary dyskinesia

**Allergic Disorders**

Irritability
To combat stimulation of ephedrine alone, etc.[2,3]

**Irritability Associated With Infections[4]**

**Restlessness and Irritability With Pain[5,6]**

**Central Nervous System**

Paralysis agitans
Chorea
Hysteria
Delirium tremens
Mania

**Anticonvulsant**

Traumatic
Tetanus
Strychnine
Eclampsia
Status epilepticus
Anesthesia

**HYPNOTIC**

**Induction of Sleep**

**OBSTETRICAL**

**Nausea and Vomiting**
**Eclampsia**
**Amnesia and Analgesia[6]**

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## ACUTE ASCENDING PARALYSIS

*concluded from page 576*

of this infection usually subside before the neurologic phenomena appear. Evidences of meningeal irritation are not prominent. In poliomyelitis on the other hand, the systemic manifestations are usually followed rapidly by signs of meningeal irritation and paralysis. Pain in the muscles and muscle spasm is much more marked in poliomyelitis. In polyneuritis the paralysis is usually symmetrical, bilateral, and progressive while in poliomyelitis the paralysis is inclined to be asymmetrical and "spotty." Rarely does ascending paralysis due to polyneuritis involve the hamstrings, gastrocnemius, biceps, and back muscles selectively as is often the case in poliomyelitis. In polyneuritis the cranial nerves are often involved sometimes with a facial diplegia. Involvement of the cranial nerves does not usually occur with poliomyelitis. In polyneuritis the spinal fluid cell count is normal or low while in the preparalytic stage of poliomyelitis the cell count is elevated and falls as the paralysis develops. With polyneuritis the paralysis is apt to develop and progress slowly sometimes over the course of weeks while in poliomyelitis it is rare to have additional involvement after the second week. The prognosis with polyneuritis is generally better except in the very acute and fulminating forms with respiratory paralysis than it is in poliomyelitis where there is apt to be prolonged convalescence with residual muscle atrophy.

A diagnostic pitfall present during the early phase of acute ascending paralysis and one which must be very carefully avoided is the diagnosis of hysteria. In the face of the typical picture of extensive paralysis as previously described one may feel that such confusion of diagnosis is not very likely. Such error does most assuredly occur as is emphasized by the literature which contains many examples. In one series of nine cases reported this error was made three times prior to hospitalization and in one of these cases the diagnosis of hysteria was entertained for a short time even after admission to the hospital. It is noted in the history that this patient had had a psychosis some few years previously. This may have been partially responsible for the error. In still another instance a patient was rushed to the hospital with the diagnosis already made by a neurologist of acute ascending paralysis probably going to require the emergency use of a respirator. At the hospital possibly because of the fact that the patient's history contained a story of a neurotic episode some years previously plus the fact that temperature, blood count, and spinal fluid were normal, plus the fact that although the patient said she could not move her arms or legs a nurse said that she observed some movement of one arm on one occasion, the patient was considered a case of hysteria. Twenty-four hours after admission. her breathing became more difficult. She was given a "placaebo for breathlessness" and left unattended. She was found shortly thereafter —dead. Post mortem examinations showed severe changes in the spinal cord.

On careful reflection error in diagnosis is to a certain extent understandable. The patient complains of sensory phenomena but objective sensory losses are absent. The patient complains of weakness and general prostration yet the thermometer, stethescope, and reflex hammer may reveal nothing definite early in the illness. Blood count and urinalysis are not likely to contribute anything. In substance then we have a patient who complains greatly but shows little or nothing. It is behind these circumstances that the danger of a diagnosis of hysteria lurks. The lesson to be learned is that any person who has recently had or who is having what appears to be a grippe infection and who complains of developing and extending paraesthesias in the distal portions of the extremities is a likely candidate for serious neurological developments. The further lesson is that any such patient should be carefully and frequently checked neurologically —at least every twenty-four hours. Abundant experience proves that a consideration of hysteria without expert neuro-psychiatric evaluation is most dangerous.

The treatment needs in acute ascending paralysis are approximately the same as those in poliomyelitis. Unfortunately no specific therapy is as yet available. Sulfa drugs and penicillin are of no value except insofar as there may be associated other types of infection. Large doses of vitamins especially thiamin chloride are given emperically. Hospitalization, protection against death due to respiratory failure, and symptomatic treatment are all that we have available in our present limited armamentarium against viral diseases. It is to be hoped that the present intensive research in this field may some day enable us to treat specifically.

### *Summary*

An unusual case of acute ascending paralysis occurring twice in the same individual with complete recovery from both episodes is reported. The incomplete and unsatisfactory state of our knowledge regarding the whole problem of ascending paralysis is discussed in the light of the widely varying etiologies and pathological pictures reported in the literature. It is suggested that a disease entity characterized by a rapidly progressing and highly fatal paralysis does exist and that the term Landry's paralysis or acute ascending paralysis should be properly reserved for this type only. It is further suggested that this type may be of viral origin and related to anterior poliomyelitis and infectious polyneuritis. Causes of other types of ascending paralysis are discussed and the fact that diagnosis and treatment of these other types constitute a problem for the internist as well as the neurologist is pointed out. The symptoms of acute ascending paralysis are described and differential diagnosis discussed. Appreciable danger of an erroneous diagnosis of hysteria during the early phase of the disease is emphasized.

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# MEDICAL STATISTICS IN HOSPITALS*

MARY NUNEZ, R.R.L.

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WE ARE ALL familiar with the saying, "Don't put off for tomorrow what you can do today", and the Spanish word, "Mañana", meaning tomorrow. Medical record librarians find that "Mañana", or putting off for tomorrow, is the arch enemy they must help doctors to overcome so that medical records may be completed promptly. We know that medical statistics must be compiled daily so that tomorrow's task may be surmountable and productive of results with the minimum of labor.

All of us are particularly interested in the medical statistics for hospitals outlined in the "Manual of Hospital Standardization" of the American College of Surgeons. The requirements which we are most concerned with are "The Analysis of Hospital Service", and "The Physician's Index", and their relationship to the medical audit of end results. This task requires planning ahead and the limiting of statistics to the essential. I am a great believer in the simple and easiest method and have found it very profitable especially in the great turnover of personnel in the medical record department during the last war and at the present time.

Monthly and yearly statistics are very often made simpler to record by daily noting of the essential data required. I am referring to the recording of the number of patients discharged on each service, deaths, infections, consultations, autopsies, doctors in attendance and departmental data. The attendance of doctors at staff meetings may be kept monthly depending on how often the staff meetings are held. To justify the recording of the above data, a careful analytical review should be carried on by the medical staff at their meetings, interdepartmental conferences and program committee sessions. The medical staff must be aware of the debit and credit aspect of this medical analysis. Results evaluated following careful study and compared with similar reports of other hospitals will elicit whether the results being produced are as good as can be reasonably expected.

In 1946, our medical record committee decided that a chart should be placed in the staff room showing the monthly percentage of incomplete records and unwritten operation descriptions. In 1947, the percentage of autopsies were included. At the end of my talk, miniature copies of these charts will be available for you. We have found it a very successful way of advertising the problem to the members of the staff.

By recording the attendance of active staff members at staff meetings, the interest shown in the professional work may be appraised and proper steps taken for increasing the interest if it is found lacking. If the debit side is on the increase, the percentage of attendance may be compiled for each member and called to his attention. This has proven very efficient in increasing the attendance especially when the requirements of the 75% attendance demanded by the by-laws is insisted upon for a continuation of staff appointment as advised by the American College of Surgeons.

There is no doubt that statistics are indispensable in the preparation of hospital budgets. The administrator depends on these figures to plan for increasing patient loads, equipment, new drugs, prediction of necessary expansion, and other pertinent measures necessary for the well being of the patient. The value of medical statistics is dependent on the complete and adequate records of each patient. Essentials should be determined and adhered to. There has been a great improvement in the quality of medical records in the past five years at our hospitals. They are completed more promptly and accurately. There is still room for further improvement but strides in the right direction have been made and are very noticeable. Our staff is much more record conscious, and as I talk to other medical record librarians who have been in this field for fifteen to twenty years, they have noted this improvement in their hospitals, too. There seems to be no question that the existence of adequate medical records supported by accurate statistics has aided greatly in the advancement of treatment and development of new procedures to the ultimate benefit of the patient.

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* Presented before the Massachusetts Association of Medical Records Librarians, at Boston, Massachusetts, April 28, 1948.

## MEDICAL STATISTICS IN HOSPITALS

*continued from page 579*

The physician's index as outlined by the American College of Surgeons is for the purpose of estimating the efficiency of the individual physician practicing in the hospital and is a statistical method of evaluating the competence of the members of the medical staff. This index may be simple or elaborate depending on the individual needs of the hospital and its budget. It loses its merit if the medical record is not completed promptly and is entirely dependent on the full cooperation of the medical staff for accurate results. An important phase of this index is that the physician immediately on admission of a patient and following his examination should determine whether the treatment is elective, emergency or palliative, and whether the risk is good, fair or bad, and note it on the chart at that time. The admission diagnosis should also be recorded promptly on admission. This information is then compared with the result secured and analyzed by a qualified medical committee or medical authority. This record is an extremely confidential one. Any physician may be shown his index, and it may be accessible to the credentials committee for evaluation when making recommendations for future appointment, but the committee must have an appreciation of the confidential nature of this record.

The questionnaire which is being introduced by the American College of Surgeons, for the appraising of hospitals, contains requests for additional statistics, which are not included in the "Analysis of Hospital Service" form. The following are some that I have noticed:

| | | |
|---|---|---|
| "Average daily census: | Bed capacity: | % |
| Postoperative deaths: (Death within 10 days) | Number of operations: | % |
| Caesarean section rate: | Viable births: | % |
| Sections: | | |

(The average of 2-3% is the expected normal rate.)"

These additional items should be considered in planning statistics for the future so that this information may be readily available for study.

There are many suggested aids in keeping stastics and the individual hospital should ascertain which method is best for the particular hospital. Statistics may be kept in loose leaf books, vertical card files, visible card files, punched card system, with its accompanying key punch machine, tabulating machine, and card counting sorter, or the

more simplified McBee Key Sort Machine method. The hospital budget will have to be considered. At our hospital, the business office has been using the McBee Key Sort Machine method for several years. In the medical record department, we have found the vertical card file system to be satisfactory. We use the forms of "The Analysis of Hospital Service" for our monthly reports. These different methods are described in detail in the textbooks, "Manual for Medical Records Librarians", by Hoffman, and "Medical Records in the Hospital", by Dr. MacEachern. Also, in the bulletins of the American Association of Medical Records Librarians, articles have appeared, denoting individual opinions of advantages and disadvantages of the different methods in use.

I have tried to cover the major points with reference to minimum medical statistics required and their importance. Accurate medical statistics are not possible without the complete cooperation of the medical staff in keeping prompt medical records containing essential facts. The word, "Mañana," may be used in its proper sphere but not in procrastinating the completion of medical records. The method of keeping these statistics will vary with the individual need of the hospital and its budget and can best be determined by careful study. Daily recording of statistics is most important to consider in facilitating the keeping of monthly and annual reports.

## RETURN SILIFORM AMPULS!

Druggists and the medical profession were urged today by the Federal Security Agency's Food and Drug Administration to return all stocks of Siliform Ampuls to the manufacturer, The Heilkraft Medical Company, Boston, Mass. This injection drug, which should be sterile, is potentially dangerous since samples collected on the market contain living organisms. Siliform is injected by some physicians and osteopaths in the belief that it will relieve patients suffering with rheumatism as claimed by the manufacturer. The Food and Drug Administration found the contaminated samples after a routine inspection at the Heilkraft factory disclosed that the Siliform Ampuls had been manufactured without sterilization. Intensive recall efforts by the manufacturer and the Food and Drug Administration for the past two weeks have not brought in all of the contaminated stocks. The article, which moves slowly, was shipped to 37 states from Maine to California and later was redistributed by wholesalers who cannot trace many of their sales. Some going back as far as 1946 have been found on the market. These ampuls may be in the hands of doctors, hospitals, clinics, and retail and wholesale druggists.

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## WANTED BY THE FBI

HUGO BOB HUBSCH, with aliases Robert C. Glass, R. C. Harris, Hogo Hobsch, Louis S. Miller, is being sought by the Federal Bureau of Investigation. On November 7, 1945, a Federal Grand Jury at Jackson, Mississippi, returned an indictment charging this man with a violation of the National Stolen Property Act. He is charged with another violation of the National Stolen Property Act in a complaint filed with a U. S. Commissioner at Birmingham, Alabama, on June 7, 1948. This individual has defrauded numerous physicians and hospitals in Eastern and Southeastern sections of the United States during the past few months through the medium of fraudulent checks.

Investigation has revealed that HUBSCH has a chronic kidney ailment and it has recently been ascertained that he has a large kidney stone in the right ureter about four inches below the kidney. This condition has caused local inflammation which, at varying intervals, results in almost unbearable pain. He has been advised that it would be necessary for him to undergo major surgery for the removal of the stone in the near future and until that surgery is performed he will need frequent, if not continuous, medical attention. This fugitive moves about rapidly in that section of the United States which is East of the Mississippi River and recently he has given numerous physicians and hospitals fraudulent checks in return for treatment, hospitalization, sedatives and narcotic prescriptions.

The following is a composite description of HUGO BOB HUBSCH: Age, about 52, claims to have been born Budapest, Hungary, November 4, 1895; height, about 5'-6"; weight, 140 to 170 lbs.; hair, dark brown, graying; eyes, brown; build, medium; race, white; nationality, believed to be naturalized American; occupations, laborer, pharmacist; scars and marks, left arm partially paralyzed, needle scars on both arms, large scars above each hip resulting from kidney operations, shrapnel scars and two bullet scars on abdomen, bridge in upper front teeth; characteristics, long nose, stooped posture.

Anyone having information concerning the whereabouts of this fugitive should immediately notify the nearest office of the Federal Bureau of Investigation or your local law enforcement agency.